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Claims

1. A method for performing cell load control in a mobile radio network using diversity connections between base stations, comprising the steps of:
- 5 a) transmitting a load information of a radio cell from a first radio network controller serving said radio cell to a second radio network controller not serving said radio cell; and
- 10 b) using said load information in said second radio network controller for deciding on a load status of said radio cell.
2. A method according to claim 1, wherein said load status is used for deciding on an admission of said radio cell for handover of a mobile terminal controlled by the second radio network controller.
- 15 3. A method according to claim 2, wherein said load information is transmitted in response to a load request issued by said second radio network controller.
- 20 4. A method according to any one of claims 1 to 3, wherein said load information is transmitted, when a load level of said radio cell has reached a predetermined load threshold.
- 25 5. A method according to claim 4, wherein said second radio network controller commands a controlled mobile terminal to replace or delete a branch to said second cell, in response to said load information.
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6. A method according to claim 3, wherein said load request is issued on the basis of a measurement of a neighbor cell supported by said mobile terminal.

5 7. A method according to claim 3 or 6, wherein said load request is issued, when said radio cell is included in an active set or a candidate set of said mobile terminal, said active set or candidate set being used for determining radio cells for the handover of said mobile terminal.

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8. A method according to claim 7, wherein said load request is issued, when said mobile terminal has transmitted a request to said second radio network controller to add said radio cell to said active set.

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9. A method according to claim 7 or 8, wherein said admission decision is directed to an admission or deletion of said radio cell in the active set of said mobile terminal.

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10. A method according to claim 3, wherein a periodical load information is transmitted in response to said load request.

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11. A method according to any one of the preceding claims, wherein said radio cell is located adjacent to an area served by said second network controller.

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12. A method according to any one of the preceding claims, wherein said load information includes a transmission power level and a received interference level of said radio cell.

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13. A method according to any one of the preceding claims, wherein said mobile radio network is a radio access network of the UMTS.

5 14. A method according to claim 1, wherein said load status is used for deciding on an amount of capacity which can be allocated to a user.

10 15. A method according to claim 1, wherein said load status is used for deciding when to order a mobile terminal to switch to a dedicated channel state.

15 16. A method according to claim 15, wherein said mobile terminal is ordered to switch to said dedicated channel, when said load status indicates an overload of a common channel.

20 17. A system for performing cell load control in a mobile radio network using diversity connections between base stations (2-1, 2-2), comprising:

a) a first radio network controller (3-1) comprising transmitting means (10) arranged for transmitting a load information of a radio cell (13) served by said first radio network controller (3-1) to a second radio network controller (3-2) not serving said radio cell (13); and

25 b) said second radio network controller (3-2) comprising a receiving means (20) arranged for receiving said load information, and a decision means (21) arranged for deciding on a load status of said radio cell (13).

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18. A system according to claim 17, wherein said load status is used for deciding on an admission of said radio

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cell (13) for a handover of a mobile terminal (1) controlled by said second radio network controller (3-2).

19. A system according to claim 17 or 18, wherein said first radio network controller (3-1) comprises a determination means (11) for determining a load level of said radio cell (13) and for generating said load information.

20. A system according to claim 19, wherein said determination means (11) controls said transmitting means (10) so as to transmit said load information, when the load level of said radio cell (13) has reached a predetermined load threshold.

21. A system according to claim 19 or 20, wherein said first radio network controller (3-1) comprises a receiving means (10) for receiving a load request transmitted by a transmitting means (20) of said second radio network controller (3-2), wherein said determination means (11) is arranged to control said transmitting means (10) of said first radio network controller (3-1) to transmit said load information when said load request has been received by said receiving means (10).

22. A system according to claim 21, wherein said determination means (11) is arranged to periodically determine said load information and to control said transmitting means (10) of said first radio network controller (3-1) to periodically transmit said load information.

23. A system according to any one of claims 19 to 22, wherein said determination means (11) is arranged to deter-

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mine said load information on the basis of a load parameter received by said first radio network controller (3-1) from a base station (2-1) of said radio cell (13).

5 24. A system according to any one of claims 17 to 23, wherein said mobile radio network is a radio access network of the UMTS.

10 25. A system according to claim 17, wherein said load status is used for deciding on an amount of capacity which can be allocated to a user.

15 26. A system according to claim 17, wherein said load status is used for deciding when to order a mobile terminal controlled by said second radio network controller (3-2) to switch to a dedicated channel state.

20 27. A system according to claim 26, wherein said mobile terminal is ordered to switch to said dedicated channel, when said load status indicates an overload of a common channel.

25 28. A radio network controller used as said first (3-1) or second (3-2) radio network controller in a system according to any one of claims 17 to 27.